



# UNITED STATES PATENT AND TRADEMARK OFFICE

UNITED STATES DEPARTMENT OF COMMERCE

United States Patent and Trademark Office

Address: COMMISSIONER FOR PATENTS

P.O. Box 1450

Alexandria, Virginia 22313-1450

www.uspto.gov

APPLICATION NO.	FILING DATE	FIRST NAMED INVENTOR	ATTORNEY DOCKET NO.	CONFIRMATION NO.
10/532,355	09/07/2005	Xiaofeng Wu	1406/259	1081
25297 7590 07/24/2008 JENKINS, WILSON, TAYLOR & HUNT, P. A. Suite 1200 UNIVERSITY TOWER 3100 TOWER BLVD., DURHAM, NC 27707				
EXAMINER				
TORRES, JOSEPH D				
ART UNIT		PAPER NUMBER		
2112				
MAIL DATE		DELIVERY MODE		
07/24/2008		PAPER		

**Please find below and/or attached an Office communication concerning this application or proceeding.**

The time period for reply, if any, is set in the attached communication.

### Office Action Summary

**Application No.**

10/532,355

**Applicant(s)**

WU, XIAOFENG

**Examiner**

Joseph D. Torres

**Art Unit**

2112

-- The MAILING DATE of this communication appears on the cover sheet with the correspondence address --  
**Period for Reply**

A SHORTENED STATUTORY PERIOD FOR REPLY IS SET TO EXPIRE 3 MONTH(S) OR THIRTY (30) DAYS, WHICHEVER IS LONGER, FROM THE MAILING DATE OF THIS COMMUNICATION.

- Extensions of time may be available under the provisions of 37 CFR 1.136(a). In no event, however, may a reply be timely filed after SIX (6) MONTHS from the mailing date of this communication.
- If NO period for reply is specified above, the maximum statutory period will apply and will expire SIX (6) MONTHS from the mailing date of this communication.
- Failure to reply within the set or extended period for reply will, by statute, cause the application to become ABANDONED (35 U.S.C. § 133). Any reply received by the Office later than three months after the mailing date of this communication, even if timely filed, may reduce any earned patent term adjustment. See 37 CFR 1.704(b).

**Status**

- 1) ☒ Responsive to communication(s) filed on 07 September 2005.  
2a) ☐ This action is **FINAL**. 2b) ☒ This action is non-final.  
3) ☐ Since this application is in condition for allowance except for formal matters, prosecution as to the merits is closed in accordance with the practice under *Ex parte Quayle*, 1935 C.D. 11, 453 O.G. 213.

**Disposition of Claims**

- 4) ☒ Claim(s) 1-19 is/are pending in the application.  
4a) Of the above claim(s) \_\_\_\_\_ is/are withdrawn from consideration.  
5) ☐ Claim(s) \_\_\_\_\_ is/are allowed.  
6) ☒ Claim(s) 1-9 is/are rejected.  
7) ☐ Claim(s) \_\_\_\_\_ is/are objected to.  
8) ☐ Claim(s) \_\_\_\_\_ are subject to restriction and/or election requirement.

**Application Papers**

- 9) ☒ The specification is objected to by the Examiner.  
10) ☒ The drawing(s) filed on 22 April 2005 is/are: a) ☐ accepted or b) ☒ objected to by the Examiner.  
Applicant may not request that any objection to the drawing(s) be held in abeyance. See 37 CFR 1.85(a).  
Replacement drawing sheet(s) including the correction is required if the drawing(s) is objected to. See 37 CFR 1.121(d).  
11) ☐ The oath or declaration is objected to by the Examiner. Note the attached Office Action or form PTO-152.

**Priority under 35 U.S.C. § 119**

- 12) ☒ Acknowledgment is made of a claim for foreign priority under 35 U.S.C. § 119(a)-(d) or (f).  
a) ☒ All b) ☐ Some \* c) ☐ None of:  
1. ☐ Certified copies of the priority documents have been received.  
2. ☐ Certified copies of the priority documents have been received in Application No. \_\_\_\_\_.  
3. ☒ Copies of the certified copies of the priority documents have been received in this National Stage application from the International Bureau (PCT Rule 17.2(a)).

\* See the attached detailed Office action for a list of the certified copies not received.

**Attachment(s)**

- 1) ☒ Notice of References Cited (PTO-892)  
2) ☐ Notice of Draftsperson's Patent Drawing Review (PTO-948)  
3) ☒ Information Disclosure Statement(s) (PTO-8508)  
Paper No(s)/Mail Date 06/20/2005  
4) ☐ Interview Summary (PTO-413)  
Paper No(s)/Mail Date \_\_\_\_\_  
5) ☐ Notice of Informal Patent Application  
6) ☐ Other: \_\_\_\_\_

## DETAILED ACTION

### *Drawings*

The drawings are objected to as failing to comply with 37 CFR 1.84(p)(4) because reference characters in Figures 7 and 10-13 have been used to designate more than one block (Note: different reference characters are need for each of the different block in Figures 7 and 10-13. Corrected drawing sheets in compliance with 37 CFR 1.121(d) are required in reply to the Office action to avoid abandonment of the application. Any amended replacement drawing sheet should include all of the figures appearing on the immediate prior version of the sheet, even if only one figure is being amended. Each drawing sheet submitted after the filing date of an application must be labeled in the top margin as either "Replacement Sheet" or "New Sheet" pursuant to 37 CFR 1.121(d). If the changes are not accepted by the examiner, the applicant will be notified and informed of any required corrective action in the next Office action. The objection to the drawings will not be held in abeyance.

### *Specification*

Applicant is reminded of the proper language and format for an abstract of the disclosure.

The abstract should be in narrative form and generally limited to a single paragraph on a separate sheet within the range of 50 to 150 words. It is important that the abstract not exceed 150 words in length since the space provided for the abstract on the computer tape used by the printer is limited. **The form and legal phraseology often used in patent claims, such as "means" and "said," should be avoided.** The abstract should describe the disclosure sufficiently to assist readers in deciding whether there is a need for consulting the full patent text for details.

The language should be clear and concise and should not repeat information given in the title. It should avoid using phrases which can be implied, such as, "The disclosure concerns," "The disclosure defined by this invention," "The disclosure describes," etc.

The abstract of the disclosure is objected to because of form and legal phraseology, such as "means". Correction is required. See MPEP § 608.01(b).

### ***Claim Objections***

Claims 2-5, 8 and 9 are objected to under 37 CFR 1.75(c), as being of improper dependent form for failing to further limit the subject matter of a previous claim. Applicant is required to cancel the claim(s), or amend the claim(s) to place the claim(s) in proper dependent form, or rewrite the claim(s) in independent form. While features of an apparatus may be recited either structurally or functionally, claims directed to an apparatus must be distinguished from the prior art in terms of structure rather than function, because apparatus claims cover what a device is, not what a device does (*Hewlett-Packard Co. v. Bausch & Lomb Inc.*, 909 F.2d 1464, 1469, 15 USPQ2d 1525, 1528 (Fed. Cir. 1990)). Claims 2-5, 8 and 9 fail to recite any limitation in the form of a structural element and/or structural interconnections of elements further limiting the IR memory apparatus of claim 1. Claims 2-5, 8 and 9 instead recite functional steps/actions and/or data characteristics/attributes of abstract data structures.

Claims 6 and 7 are objected to under 37 CFR 1.75(c), as being of improper dependent form for failing to further limit the subject matter of a previous claim.

Applicant is required to cancel the claim(s), or amend the claim(s) to place the claim(s) in proper dependent form, or rewrite the claim(s) in independent form. Claims 6 and 7 fail to recite any limitation in the form of a structural element and/or structural interconnections of elements further limiting the IR memory apparatus of claim 1. Claims 6 and 7 instead recite structural elements external to the IR memory apparatus of claim 1 of some other device connected to the IR memory apparatus of claim 1.

***Claim Rejections - 35 USC § 112***

The following is a quotation of the second paragraph of 35 U.S.C. 112:

The specification shall conclude with one or more claims particularly pointing out and distinctly claiming the subject matter which the applicant regards as his invention.

Claims 1-9 are rejected under 35 U.S.C. 112, second paragraph, as being incomplete for omitting essential elements, such omission amounting to a gap between the elements.

Claims 1-9 are rejected under 35 U.S.C. 112, second paragraph, as being incomplete for omitting essential structural cooperative relationships of elements, such omission amounting to a gap between the necessary structural connections. See MPEP § 2172.01. Claim 1 recites, the intended functional use of "buffer-storing a specific number of data blocks with a predetermined first data resolution", "buffer-storing erroneously decoded data blocks" and "the second memory area storing the erroneously decoded data blocks with a second data resolution, which is lower than the first data resolution, and d) it being possible for the second data resolution with which the erroneously decoded data blocks are stored in the second memory area of the IR

memory to be changed over adaptively between different resolution levels in a manner dependent on a burst data transmission signal quality measured by the receiver”.

The Examiner asserts while features of an apparatus may be recited either structurally or functionally, claims directed to an apparatus must be distinguished from the prior art in terms of structure rather than function, because apparatus claims cover what a device is, not what a device does (*Hewlett-Packard Co. v. Bausch & Lomb Inc.*, 909 F.2d 1464, 1469, 15 USPQ2d 1525, 1528 (Fed. Cir. 1990)).

That is, **the boundaries of the subject matter** for an apparatus are only made clear in terms of structure rather than function and unless the functional and/or descriptive material are explicitly written in a fashion that imparts some structural limitation on the apparatus, a functional limitation cannot be regarded as distinguishing over the Prior Art.

Furthermore; in *In re Venezia*, 530 F.2d 956, 189 USPQ 149 (CCPA 1976), it is clearly pointed out that functional limitations are only excluded from considerations under 35 U.S.C. 112, second paragraph, when a functional limitation imparts some structural limitation on an apparatus (i.e. sleeves “adapted to be fitted” Note: a sleeve “adapted to be fitted” requires a specific physical alteration to a sleeve since any sleeve that is not “adapted to be fitted” is necessarily structurally different from what is being claimed). Since the functional matter recited in the Applicant's claims can be implemented in software or can be implemented without requiring structural changes to existing circuitry that does not implement such a function such as programmable logic, the functional matter in the Applicant's claims does not conform to the requirement that a limitation for

an apparatus distinguish from the Prior Art in terms of structure rather than function. The functional matter in the Applicant's claims instead raises questions as to the structural connection of the functional matter to structural elements in the claim to the degree that it is not even clear, if the functional matter as recited imparts any structural connection to any structural element in the claim. As such, the functional matter as recited in claims 1-9, is indefinite and fails to comply with 35 U.S.C. 112, second paragraph.

Claims 2-5, 8 and 9 fail to recite any limitation in the form of a structural element and/or structural interconnections of elements further limiting the IR memory apparatus of claim 1. Claims 2-5, 8 and 9 instead recite functional steps/actions and/or data characteristics/attributes of abstract data structures.

The Examiner asserts while features of an apparatus may be recited either structurally or functionally, claims directed to an apparatus must be distinguished from the prior art in terms of structure rather than function, because apparatus claims cover what a device is, not what a device does (*Hewlett-Packard Co. v. Bausch & Lomb Inc.*, 909 F.2d 1464, 1469, 15 USPQ2d 1525, 1528 (Fed. Cir. 1990)).

That is, **the boundaries of the subject matter** for an apparatus are only made clear in terms of structure rather than function and unless the functional and/or descriptive material are explicitly written in a fashion that imparts some structural limitation on the apparatus, a functional limitation cannot be regarded as distinguishing over the Prior Art.

Furthermore; in *In re Venezia*, 530 F.2d 956, 189 USPQ 149 (CCPA 1976), it is clearly pointed out that functional limitations are only excluded from considerations under 35 U.S.C. 112, second paragraph, when a functional limitation imparts some structural limitation on an apparatus (i.e. sleeves "adapted to be fitted" Note: a sleeve "adapted to be fitted" requires a specific physical alteration to a sleeve since any sleeve that is not "adapted to be fitted" is necessarily structurally different from what is being claimed). Since the functional matter recited in the Applicant's claims can be implemented in software or can be implemented without requiring structural changes to existing circuitry that does not implement such a function such as programmable logic, the functional matter in the Applicant's claims does not conform to the requirement that a limitation for an apparatus distinguish from the Prior Art in terms of structure rather than function. The functional matter in the Applicant's claims instead raises questions as to the structural connection of the functional matter to structural elements in the claim to the degree that it is not even clear, if the functional matter as recited imparts any structural connection to any structural element in the claim. As such, the functional matter as recited in claims 1-9, is indefinite and fails to comply with 35 U.S.C. 112, second paragraph.

### ***Claim Rejections - 35 USC § 102***

The following is a quotation of the appropriate paragraphs of 35 U.S.C. 102 that form the basis for the rejections under this section made in this Office action:

A person shall be entitled to a patent unless –



Art Unit: 2112

(a) the invention was known or used by others in this country, or patented or described in a printed publication in this or a foreign country, before the invention thereof by the applicant for a patent.

Claims 1-9 are rejected under 35 U.S.C. 102(b) as being anticipated by the Applicant's Admitted Prior Art.

35 U.S.C. 102(b) rejection of claims 1-5, 8 and 9.

FIG. 6 in the Applicant's Admitted Prior Art "schematically shows an IR memory according to the prior art. The IR memory according to the prior art comprises a first memory area  $SB_A$  and a second memory area  $SB_B$ . The first memory area  $SB_A$  serves for buffer-storing a specific number of RLC data blocks with a predetermined data resolution  $R$ "... "The second memory area  $SB_B$  within the IR memory according to the prior art serves for storing the erroneously decoded RLC data blocks".

As per functional limitations describing intended use in claim 1: "buffer-storing a specific number of data blocks with a predetermined first data resolution", "buffer-storing erroneously decoded data blocks" and "the second memory area storing the erroneously decoded data blocks with a second data resolution, which is lower than the first data resolution, and d) it being possible for the second data resolution with which the erroneously decoded data blocks are stored in the second memory area of the IR memory to be changed over adaptively between different resolution levels in a manner dependent on a burst data transmission signal quality measured by the receiver"; while features of an apparatus may be recited either structurally or functionally, claims directed to an apparatus must be distinguished from the prior art in terms of structure rather than function, because apparatus claims cover what a device is, not what a

Art Unit: 2112

device does (Hewlett-Packard Co. v. Bausch & Lomb Inc., 909 F.2d 1464, 1469, 15 USPQ2d 1525, 1528 (Fed. Cir. 1990)).

That is, **the boundaries of the subject matter** for an apparatus are only made clear in terms of structure rather than function and unless the functional and/or descriptive material are explicitly written in a fashion that imparts some structural limitation on the apparatus, a functional limitation cannot be regarded as distinguishing over the Prior Art. Thus, if a prior art structure is capable of performing the intended use as recited in the preamble, or elsewhere in a claim, then it meets the claim.

As per functional limitations describing intended use in claims 2-5, 8 and 9; while features of an apparatus may be recited either structurally or functionally, claims directed to an apparatus must be distinguished from the prior art in terms of structure rather than function, because apparatus claims cover what a device is, not what a device does (Hewlett-Packard Co. v. Bausch & Lomb Inc., 909 F.2d 1464, 1469, 15 USPQ2d 1525, 1528 (Fed. Cir. 1990)).

That is, **the boundaries of the subject matter** for an apparatus are only made clear in terms of structure rather than function and unless the functional and/or descriptive material are explicitly written in a fashion that imparts some structural limitation on the apparatus, a functional limitation cannot be regarded as distinguishing over the Prior Art. Thus, if a prior art structure is capable of performing the intended use as recited in the preamble, or elsewhere in a claim, then it meets the claim.

35 U.S.C. 102(b) rejection of claims 6 and 7.

Figures 5 and 6 in the Applicant's Admitted Prior Art.

***Conclusion***

Any inquiry concerning this communication or earlier communications from the examiner should be directed to Joseph D. Torres whose telephone number is (571) 272-3829. The examiner can normally be reached on M-F 8-5.

If attempts to reach the examiner by telephone are unsuccessful, the examiner's supervisor, Jacques Louis-Jacques can be reached on (571) 272-6962. The fax phone number for the organization where this application or proceeding is assigned is 571-273-8300.

Information regarding the status of an application may be obtained from the Patent Application Information Retrieval (PAIR) system. Status information for published applications may be obtained from either Private PAIR or Public PAIR. Status information for unpublished applications is available through Private PAIR only. For more information about the PAIR system, see <http://pair-direct.uspto.gov>. Should you have questions on access to the Private PAIR system, contact the Electronic Business Center (EBC) at 866-217-9197 (toll-free). If you would like assistance from a USPTO Customer Service Representative or access to the automated information system, call 800-786-9199 (IN USA OR CANADA) or 571-272-1000.

Joseph D. Torres  
Primary Examiner  
Art Unit 2112

/Joseph D. Torres/  
Primary Examiner, Art Unit 2112